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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,779	02/04/2004	Michael J. Franz	9506	5168

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EXAMINER

LANGDON, EVAN H

ART UNIT PAPER NUMBER

3654

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/771,779	Applicant(s) FRANZ ET AL.	
	Examiner Evan H Langdon	Art Unit 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-17 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,18 and 19 is/are rejected.
- 7) ☐ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/4/04</u> . | 6) <input type="checkbox"/> Other: ____  |

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Mustonen et al. (US 6,517,679 B1).

Mustonen et al. discloses a method of controlling tension in a moving web, the method comprising the steps of:

- a) determining a modulus-of-elasticity value of the moving web material,
- b) adjusting a control system, gain according to the modulus-of-elasticity value of the moving web material, and
- c) adjusting a speed of a web drive according to the control system (col. 3 and 4).

In regards to claim 4, Mustonen discloses the web drive has a speed adjusted according to the control system gain is selected from a group consisting of: an up stream drive, a down stream drive, and a combination thereof.

In regards to claim 5, the material web is a paper web.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mustonen et al. in view of Hideki (JP 10-250888).

Mustonen discloses an automatic feedback regulation control of the of adjusting the tension according to the modulus-of-elasticity, but fails to teach the control system as a proportional gain control.

Hideki teaches controlling the tension and velocity of a moving web by proportional gain control system, including determining the instantaneous proportional gain.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the control system of Mustonen to include a proportional gain control system including determining an instantaneous proportional gain as suggested by Hideki, to more accurately reduce the error.

In further regards to claim 18, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the instantaneous proportional gain of the modulus-of-elasticity by use of the proportional gain control system of Mustonen as modified by Hideki.

In regards to claim 19, Mustonen as modified by Hideki teaches determining the web tension and the web velocity over two different spans, as seen in Figure 1 Mustonen, and determine the modulus-of-elasticity from all the inputs.

*Allowable Subject Matter*

Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 6-17 are allowed.

The following is an examiner's statement of reasons for allowance: Claim 6 is allowable because the teachings of the prior art taken as a whole do not show or render obvious the combination set forth, including: adjusting the output according to the error signal, the instantaneous integral gain according to the web-velocity analog value, and the instantaneous proportional gain according to the modulus-of-elasticity analog value.

The following is an examiner's statement of reasons for allowance: Claim 8 is allowable because the teachings of the prior art taken as a whole do not show or render obvious the combination set forth, including: adjusting the output according to the tension error signal, the instantaneous integral gain according to the web-velocity analog value, and the instantaneous proportional gain according to the modulus-of-elasticity analog value.

The following is a statement of reasons for the indication of allowable subject matter: Claim 3 contains patentable subject matter because the teachings of the prior art taken as a whole do not show or render obvious the combination set forth, including adjusting the control gain according to the modulus-of-elasticity, adjusting the integral gain of the controller according to the web-velocity analog value and adjusting the system output according to the web-tension error signal and the integral gain of the controller.

Any comments considered necessary by applicant must be submitted no later than the

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payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evan H Langdon whose telephone number is (571)272-6948. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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KATHY MATECKI  
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